

REMARKS

The application has been amended and is believed to be in condition for allowance.

Claims 1-15 are pending, independent claim 15 being newly added.

The previously pending claims have been amended as to form. Independent claims 1 and 9 have been amended so as to more specifically recite the action of the limiting element. That is, these claims have been amended to further recite that the limiting element reduces a pressure surge, so that a pressure surge in the second brake circuit is reduced.

The specification has been amended as to form including the insertion of section headings.

Figure 1 has been labeled as "PRIOR ART" responsive to the drawing objection.

The claims have been amended responsive to the indefiniteness rejection so as to remedy the stated basis of rejection. Accordingly, withdrawal of the indefiniteness rejection is respectfully requested.

Claims 1-2, 4-5 and 9 stand rejected as anticipated by YODER 3,431,028.

Claim 9 stands rejected as anticipated by CUMMINS et al. 3,957,315.

Claims 1-2, 4-5 and 9 stand rejected as anticipated by MATSUMOTO et al. 3,677,605.

Claims 1-2, 4-5 and 9 stand rejected as anticipated by DOERFLER et al. 4,068,900.

Claims 1-2, 4-5, and 9 stand rejected as anticipated by STELZER 3,278,241.

Claims 3, 6-8, and 10-14 have been withdrawn from consideration as being readable on species not elected.

Applicant has carefully studied each of these references and believes that the presently pending claims are patentable over these references. None of the references disclose a braking system, as recited, which reduces the pressure surge that takes place when the brakes are activated. The pressure surge gives rise to a brake shock, which the driver experiences as a jerk.

As recited, the present invention solves this problem by first activating the brakes of one of the wheel axles and, after a time delay, activating the brakes of the second wheel axle. The independent apparatus claims recite this action more specifically. See in independent claim 1, that the limiting element reduces the pressure surge when the first and second brake circuits are activated by limiting flow of hydraulic oil to the second brake member until a drive coil reaches a predetermined pressure, after which the limitation is removed and

pressure flow is opened to the second brake member so as to allow the brake member to be activated. New independent claim 15 recites the limiting element arranged to reduce a pressure surge when pressure on a brake pedal activates the first and second brake circuits by limiting the sequence of applying hydraulic oil to the first and second brake members, the limiting element adapted to limit the flow to the second brake member up to a predetermined oil pressure, and, after reaching the predetermined oil pressure, to remove the limit and open the flow to the second brake member to achieve a time delay in activating the second brake member so as to reduce pressure surge and brake shock when activating the first and second brake circuits.

YODER discloses a brake system which prevents locking of the brakes, so that skidding is avoided. A restrictor is arranged in the brake system. However, this restrictor does not meet the limitations of the amended and newly added independent claims.

CUMMINS et al. also disclose a brake system in which a delayed activation of the front brakes of a tractor-trailer combination is achieved to prevent jackknifing. However, again, the recitations of the pending claims are not taught or suggested.

MATSUMOTO et al. disclose a brake system to prevent skidding in panic braking situations. A pressure control valve

is arranged to restrict the influence of the brakes on one of the wheel axles. However, there is no teaching or suggestion of the newly added recitations to claims 1 and 9 and the recitations of new claim 15.

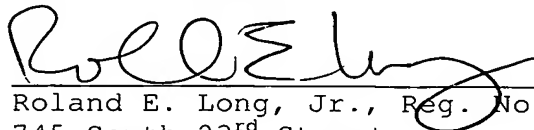
Both DOERFLER et al. and STELZER disclose vehicles which are provided with disc brakes on the front wheels and drum brakes on the rear wheels. A metering valve is arranged to activate the drum brakes at the same time or after the disc brakes have been activated. However, these systems do not meet the recitations of the amended or newly added independent claims.

As none of the cited references disclose a brake system which reduces the pressure surge which takes place when the brakes are activated, in the manner recited by the presently pending claims, reconsideration and allowance of all the pending claims are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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REL/mjr

APPENDIX:

The Appendix includes the following item(s):

- a Replacement Sheet for Figure 1 of the drawings